#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004572 Address: 333 Burma Road **Date Inspected:** 08-Nov-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

#### **Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

#### Heavy Equipment Shop Bay 1:

The QA Inspector randomly observed 2 ZPMC welders ID Numbers 050295 and 250522, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S-2, to weld a butt splice at Weld Joint (WJ) Numbers NSD1-SA179D/E-16, 20, E/E-1A, 4A, 5, 9, 16 and 17. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Dong Yumei ID 054069, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-345, to ta-FCAW-2G(2F)-Repair to build up base metal on the edge of Skin Plate C Lift 2, to bring overall length in compliance with contract requirements. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jian Fei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Heavy Equiupment Shop Bay 2:

The QA Inspector randomly observed ZPMC welder ID 066675, utilizing gantry mounted welding apparatus with

### WELDING INSPECTION REPORT

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the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2332-TC-P5-F, to weld longitudinal stiffeners to Skin Plate E (E) 2nd Lift. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Shi Li Deng, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

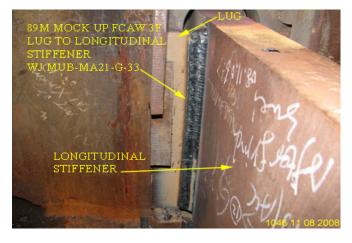
Heavy Equiupment Shop Bay 3:

The QA Inspector performed a random final Visual Inspection (VT) of all fillet welds attaching the U-Ribs to Deck Plates DP085-001, DP112-001 and DP490-001. There appeared to be no indications and the QA Inspector accepted the welds on the above listed Deck Plates. The QA Inspector also signed off on the In Process Yellow tags for each Deck Plate.

Outside Heavy Equiupment Shop Bay 2:

The QA Inspector randomly observed ZPMC welder Han Si Qi ID 020842 utilizing the FCAW Process in the 3F (Vertical Fillet) Position with ZPMC WPS WPS-B-T-2133, to weld lugs on 89M Mock Up at WJ's MUB-MA21G/J-33 and 69. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.





#### **Summary of Conversations:**

As noted in the above body of this report.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials for your project.

**Inspected By:** Franco, Charlie Quality Assurance Inspector

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**Reviewed By:** Wright, Mark QA Reviewer